

JR

Application No. 10/663,786  
 Reply to Office Action of June 19, 2007

# IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A titanium alloy consisting of:

when the entirety is taken as 100% by mass,

at least one alloying element selected from the group consisting of molybdenum (Mo), vanadium (V), tungsten (W), niobium (Nb), tantalum (Ta), iron (Fe), chromium (Cr), nickel (Ni), ~~cobalt (Co)~~, and copper (Cu) and aluminum (Al) in a molybdenum equivalent "Mo<sub>eq</sub>" of from 3 to 11% by mass, the molybdenum equivalent determined by the following equation,

$$\text{Mo}_{\text{eq}} = \text{Mo}_{\text{mass}} + 0.67\text{V}_{\text{mass}} + 0.44\text{W}_{\text{mass}} + 0.28\text{Nb}_{\text{mass}} + 0.22\text{Ta}_{\text{mass}} + 2.9\text{Fe}_{\text{mass}} + 1.6\text{Cr}_{\text{mass}} [ [+1.1\text{Ni}_{\text{mass}} + 1.4\text{Co}_{\text{mass}}] ] + 0.77\text{Cu}_{\text{mass}} [ [-\text{Al}_{\text{mass}}] ],$$
 wherein Mo<sub>mass</sub>, V<sub>mass</sub>, W<sub>mass</sub>, Nb<sub>mass</sub>, Ta<sub>mass</sub>, Fe<sub>mass</sub>, Cr<sub>mass</sub>, ~~[[Ni<sub>mass</sub>, Co<sub>mass</sub>, Cu<sub>mass</sub> and Al<sub>mass</sub>]]~~ and Cu<sub>mass</sub> are expressed in percentages by mass;

~~at least one an~~ interstitial solution element that is selected from the group consisting of oxygen (O), nitrogen (N) and carbon (C) in an amount of from 0.6 to 3% by mass; and

the balance of titanium (Ti);

~~the content of Al being controlled to 1.8% by mass or less; and~~

being  $\beta$  single phase at room temperature ~~at least~~;

wherein said titanium alloy is produced by a solution treatment comprising:

heating a raw titanium alloy material to form a  $\beta$  single phase at a temperature above the  $\alpha/\beta$  transformation temperature of the raw titanium alloy material; and

quenching the heated raw titanium alloy material to form a titanium alloy that is a  $\beta$  single phase at room temperature.

Claim 2 (Cancelled)